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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,569	11/28/2000	John P. Anderson	015270-006446US	6102

20350 7590 12/29/2004

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SAN FRANCISCO, CA 94111-3834

EXAMINER

WALICKA, MALGORZATA A

ART UNIT PAPER NUMBER

1652

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/724,569

Applicant(s)

ANDERSON ET AL.

Examiner

Malgorzata A. Walicka

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 0704.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 56-77 is/are pending in the application.
- 4a) Of the above claim(s) 59 and 60 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56-58 and 61-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/11/02</u> . | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> . |

Continuation of Attachment(s) 6). Other: sequence alignments used in 102 rejections.

The Response to Restriction Requirement filed Dec. 7, 2004, and Supplemental is acknowledged. The Amendments to the claims and specification have been entered as requested. Claims 1-55 and 78-131 are canceled. Claims 56-77 are pending in the application and claims 56-58 and 61-77 are the subject of this Office Action; claims 59-60 as directed to non elected species and are withdrawn from examiner's consideration.

DETAILED ACTION

1. Restriction/election

Applicant's election, without traverse, of Group V, claims 56-77 is acknowledged. In response to requirement of election of species Applicant elected polypeptides having an amino acid sequence starting with amino acid residues No. 46 of SEQ ID NO: 2.

Upon the allowance of a generic claim, Applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Claims 59 and 60 are directed to nucleic acid molecules encoding polypeptides that do not start with the 46th amino acid of SEQ ID NO: 2. Thus these claims do not read on the elected species and are not under current examination.

2. Objections

2.1. Oath

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The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02. It was not executed in accordance with either 37 CFR 1.66 or 1.68.

The oath or declaration is defective because: there is lack of date of signature of the inventor McConlogue on page 4 of 4.

2.1. Specification

Description of Fig. 5 on page 8 is objected to, because it is confusing about the term proenzyme. The description states that SEQ ID NO: 43 is "the proenzyme region corresponding to amino acids 46-501", whereas in the same description Applicant write that the putative pro- region consists of residues 22-45; SEQ ID NO: 47. Thus residues 46-501 represent the mature enzyme and not proenzyme. Please correct the description of Fig. 5.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors in the specification of which applicant may become aware.

3. Rejections

3.1. 35 USC, section 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 72-77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are rejected as dependent on the canceled claim 55. The claims cannot be examined.

3.2. 35 USC, section 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

1. A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 56-58 and 61-68 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent No. 6,319,689, issued to Powell et al. on Nov. 20, 2001, with priority date Jan. 28, 1997.

The claims are directed:

claim 56-58 to an isolated nucleic acid, comprising a sequence of nucleotides that encode a beta-secretase that is at least 95% identical to a

protein selected from the group consisting of SEQ ID NO: 43, 58 and 71, or a complementary sequence specifically excluding a nucleic acid encoding a protein having the sequence SEQ ID NO: 2;

claims 61-67 to an expression vector and heterologous cells transfected with nucleic acid of claim 56;

claims 68 to recombinant production of beta secretase encoded by nucleic acid of claim 56 and purification of the produced protein on an affinity matrix.

Powell discloses the full amino acid sequence, i.e., 501 amino acids, of human beta-secretase that differs from the full amino acid sequence of the instant invention in residue 130, i.e. Powell et al.'s sequence has glutamic acid in that position and SEQ ID NO: 2 of the instant invention has in that position valine. In the patent the sequence is also identified by SEQ ID NO: 2. SEQ ID NO: 43, 58 and 71 of the instant application are more than 99% identical to the fragments of beta secretase of SEQ ID NO: 2 of the patent, wherein said fragments consist of amino acids 46-501, 46-452 and 46-419 of SEQ SEQ ID NO: 2 of the patent. Powell discloses nucleic acid molecule of SEQ ID NO: 1 encoding beta-secretase of SEQ ID NO: 2, thus Powell et al. disclose nucleic acid molecules having limitations recited in claims 56-58; see the alignment of SEQ ID NO: 43 and 42 with that of Powell's. Powell et al. teach also expression vectors, host cells and recombinant production of beta-secretase; see column 14, subtitle Vectors,

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Host Cells Expression. In column 15, line 10 Powell et al. teach purification of the expressed enzyme using, among others, affinity chromatography.

Furthermore the following rejection over prior art is applicable.

2. A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

In addition to rejection over Powell and al.'s patent, claims 56-58, 61-69 and 71 are rejected under 35 U.S.C. 102(g) as being anticipated by US patent No. 6, 420, 534, issued to Gurney et al. on July 16, 2002, with priority date September 24, 1998.

Gurney discloses the full amino acid sequence, i.e., 501 amino acids, of mouse beta-secretase identified by SEQ ID NO: 8, which is 98.8% identical to SEQ ID NO: 43 of the instant application; see the enclosed sequence alignment of the amino acid and

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nucleotide sequences. Gurney et al. teach vectors, host cells and expression of the disclosed sequences in several cell systems; see columns 23-25 and examples 9, 10 and 11 of the patent. The patent teaches also several methods of purification of the beta-secretase, including affinity chromatography using polyclonal and monoclonal antibodies; see column 23, first paragraph. Thus, Gurney et al. teach all the limitations of claims 56-58, 61-69 and 71.

4. Conclusion

All claims are rejected. No claim is in condition for allowance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malgorzata A. Walicka whose telephone number is (571) 272-0944. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached on (571) 272-0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should


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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Malgorzata A. Walicka, Ph.D.

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Patent Examiner


REBECCA E. PROUTY
PRIMARY EXAMINER
GROUP 1800
1652

Oy 301 LYLGEVTVNSFRITILPOQYLRPEVDVATSDQDCYKFAISQSSSTGTVMGAVIMEGFYV 360
Db 346 LYLGEVTVNSFRITILPOQYLRPEVDVATSDQDCYKFAISQSSSTGTVMGAVIMEGFYV 405
Oy 361 FDRARKRIGFAVSACHVHDEFRTAAVEGPEVTLDMEDCGYNIPQTDSTLMTIAYVMAAI 420
Db 406 FDRARKRIGFAVSACHVHDEFRTAAVEGPEVTLDMEDCGYNIPQTDSTLMTIAYVMAAI 465
Oy 421 CALFNLPLCLMWCMRCRLCRQHQHDFADDISLLK 456
Db 466 CALFNLPLCLMWCMRCRLCRQHQHDFADDISLLK 501

RESULT 2
US-09-348-367D-4
; Sequence 4, Application US/09548367D
; Patent No. 6440698
; GENERAL INFORMATION:
; APPLICANT: GURNEY ET AL.
; TITLE OF INVENTION: ALZHEIMER'S DISEASE SECRETASE, APP SUBSTRATES THEREFOR AND USES
; FILE REFERENCE: 29915/6280H
; CURRENT APPLICATION NUMBER: US/09/548,367D
; PRIOR FILING DATE: 2000-04-12
; PRIOR APPLICATION NUMBER: US 60/155,493
; PRIOR FILING DATE: 1999-09-23
; PRIOR APPLICATION NUMBER: US 09/404,133
; PRIOR FILING DATE: 1999-09-23
; PRIOR APPLICATION NUMBER: PCT/US99/20881
; PRIOR FILING DATE: 1999-09-23
; PRIOR APPLICATION NUMBER: US 60/101,594
; PRIOR FILING DATE: 1998-09-24
; NUMBER OF SEQ ID NOS: 73
; SOFTWARE: Patent in version 3.1
; SEQ ID NO 4
; LENGTH: 501
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-348-367D-4

Query Match 100.0%; Score 2419; DB 4; Length 501;
Best Local Similarity 100.0%; Pred. No. 1.1e-251;
Matches 456; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 ETDEEPEEPPGRGSGFVEMVNLGRKSGQGYVEMTVGSPPTLNLVDTGSSNFVGAAP 60
Db 46 ETDEEPEEPPGRGSGFVEMVNLGRKSGQGYVEMTVGSPPTLNLVDTGSSNFVGAAP 105
Oy 61 HPFLHRYVQRLSTYRDLRGVYVPYTOGKWEGLGTLVSIHPGPNVTVRANIAAITE 120
Db 106 HPFLHRYVQRLSTYRDLRGVYVPYTOGKWEGLGTLVSIHPGPNVTVRANIAAITE 165
Oy 121 SDKFFINGSNWEGILGLAYAEIARPDSDLPPFDLSLVKQTHVNPFLSLQCCGAGFPPLNOS 180
Db 166 SDKFFINGSNWEGILGLAYAEIARPDSDLPPFDLSLVKQTHVNPFLSLQCCGAGFPPLNOS 225
Oy 181 EVLASVSGSMIIGGIDHSLYTGSLWYTPIRREWYVEIIVRVEINGQDLKMDCKEYNYDK 240
Db 236 EVLASVSGSMIIGGIDHSLYTGSLWYTPIRREWYVEIIVRVEINGQDLKMDCKEYNYDK 285
Oy 241 SIVDSGTTNLRPKKVEFAAVKSTKKAASSTKEKPDGFWLGEQLVCHQAGTTPNNIFPVLS 300
Db 286 SIVDSGTTNLRPKKVEFAAVKSTKKAASSTKEKPDGFWLGEQLVCHQAGTTPNNIFPVLS 345
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Db 346 LYLGEVTVNSFRITILPOQYLRPEVDVATSDQDCYKFAISQSSSTGTVMGAVIMEGFYV 405
Oy 361 FDRARKRIGFAVSACHVHDEFRTAAVEGPEVTLDMEDCGYNIPQTDSTLMTIAYVMAAI 420
Db 406 FDRARKRIGFAVSACHVHDEFRTAAVEGPEVTLDMEDCGYNIPQTDSTLMTIAYVMAAI 465

Oy 421 CALFNLPLCLMWCMRCRLCRQHQHDFADDISLLK 456
Db 466 CALFNLPLCLMWCMRCRLCRQHQHDFADDISLLK 501

RESULT 3
US-09-009-191-2
; Sequence 2, Application US/09009191
; Patent No. 6319689
; GENERAL INFORMATION:
; APPLICANT: POWELL, DAVID
; APPLICANT: CHAPMAN, CONRAD
; APPLICANT: MURPHY, KAY
; APPLICANT: SMITH, TRUDI
; TITLE OF INVENTION: ASP2
; NUMBER OF SEQUENCES: 6
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: RATNER & PRESTIA
; STREET: P.O. BOX 980
; CITY: VALLEY FORGE
; STATE: PA
; COUNTRY: USA
; ZIP: 19482
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/009,191
; FILING DATE: 20-JAN-1998
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: UK 9701684.4
; FILING DATE: 28-JAN-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: PRESTIA, PAUL F
; REGISTRATION NUMBER: 23,031
; REFERENCE/DOCKET NUMBER: GH-70368
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 610-407-0700
; TELEFAX: 610-407-0701
; TELEX: 846169
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 501 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-009-191-2

Query Match 99.8%; Score 2413; DB 4; Length 501;
Best Local Similarity 99.8%; Pred. No. 4.8e-251;
Matches 455; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Oy 1 ETDEEPEEPPGRGSGFVEMVNLGRKSGQGYVEMTVGSPPTLNLVDTGSSNFVGAAP 60
Db 46 ETDEEPEEPPGRGSGFVEMVNLGRKSGQGYVEMTVGSPPTLNLVDTGSSNFVGAAP 105
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Db 106 HPFLHRYVQRLSTYRDLRGVYVPYTOGKWEGLGTLVSIHPGPNVTVRANIAAITE 165
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Db 226 EVLASVSGSMIIGGIDHSLYTGSLWYTPIRREWYVEIIVRVEINGQDLKMDCKEYNYDK 285
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2/10/1999

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Db 286 SIVDSGTTNLRPKKVFEEAAVKSIAASSTKFPDGFMLGSQLVCWQAGTTPNNIFPVIS 345
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Db 346 LYLMGEVNTQSFRTITLPOQYLRLPVEDVATSDQDCYKFAISQSSTGTVMGAVIMEGFYV 405
QY 361 FDRARRKRIGFAVSACHVDEFTAAVEGPFVTLDMEDCGYNIPTDDESTLTMTIAYVMAAI 420
Db 406 FDRARRKRIGFAVSACHVDEFTAAVEGPFVTLDMEDCGYNIPTDDESTLTMTIAYVMAAI 465
QY 421 CALFMLPLCLMVQWRCRLCRLRQHHDDFADDISLLK 456
Db 466 CALFMLPLCLMVQWRCRLCRLRQHHDDFADDISLLK 501

RESULT 4
US-09-713-158-2
: Sequence 2, Application US/09713158
: Patent No. 6361975
: GENERAL INFORMATION:
: APPLICANT: ZHU, YUAN
: APPLICANT: LI, XIAOTONG
: APPLICANT: POWELL, DAVID J.
: TITLE OF INVENTION: MOUSE ASPARTIC SECRETASE-2 (MASP-2)
: FILE REFERENCE: GP-70660
: CURRENT APPLICATION NUMBER: US/09713.158
: PRIOR FILING DATE: 2000-11-15
: PRIOR APPLICATION NUMBER: 60/165,800
: NUMBER OF SEQ ID NOS: 2
: SOFTWARE: FastSeq for Windows version 3.0
: SEQ ID NO 2
: LENGTH: 501
: TYPE: PRT
: ORGANISM: MUS MUSCULUS
US-09-713-158-2

Query Match 98.8%; Score 2390; DB 4; Length 501;
Best Local Similarity 98.2%; Pred. No. 1.5e-248;
Matches 448; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 1 ETDEEPEEPCRGSGFVEMVDNLGRKSGQGYVYVEMTSGPOTLNLVDTGSSNFVAGAAP 60
Db 46 ETDEEPEEPCRGSGFVEMVDNLGRKSGQGYVYVEMTSGPOTLNLVDTGSSNFVAGAAP 105
QY 61 HPFLHRYTORLSSTYRDLRKGVYVPTQGWEGELGTLVSIHPGPNVTVRANIAITE 120
Db 106 HPFLHRYTORLSSTYRDLRKGVYVPTQGWEGELGTLVSIHPGPNVTVRANIAITE 165
QY 121 SDRFFINGSNWEGLGLAYAEIARPDSDSLEPFEDSLVKQTHVFNLFSLQCCAGFPPLNQS 180
Db 166 SDRFFINGSNWEGLGLAYAEIARPDSDSLEPFEDSLVKQTHVFNLFSLQCCAGFPPLNQT 225
QY 181 EVLASVGGSMIIGGIDHSLYTGSLWYTPIRREWYEVIIVRVEINGQDLKMDCKEYNYDK 240
Db 226 EALASVGGSMIIGGIDHSLYTGSLWYTPIRREWYEVIIVRVEINGQDLKMDCKEYNYDK 285
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Db 286 SIVDSGTTNLRPKKVFEEAAVKSIAASSTKFPDGFMLGSQLVCWQAGTTPNNIFPVIS 345
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Db 346 LYLMGEVNTQSFRTITLPOQYLRLPVEDVATSDQDCYKFAISQSSTGTVMGAVIMEGFYV 405
QY 361 FDRARRKRIGFAVSACHVDEFTAAVEGPFVTLDMEDCGYNIPTDDESTLTMTIAYVMAAI 420
Db 406 FDRARRKRIGFAVSACHVDEFTAAVEGPFVTLDMEDCGYNIPTDDESTLTMTIAYVMAAI 465
QY 421 CALFMLPLCLMVQWRCRLCRLRQHHDDFADDISLLK 456
Db 466 CALFMLPLCLMVQWRCRLCRLRQHHDDFADDISLLK 501

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Db 466 CALFMLPLCLMVQWRCRLCRLRQHHDDFADDISLLK 501

RESULT 5
US-09-548-372D-8
: Sequence 8, Application US/09548372D
: Patent No. 6420534
: GENERAL INFORMATION:
: APPLICANT: GURNEY ET AL.
: TITLE OF INVENTION: ALZHEIMER'S DISEASE SECRETASE, APP SUBSTRATES THEREFOR AND
: TITLE OF INVENTION: THEREOF
: FILE REFERENCE: 29915/62801
: CURRENT APPLICATION NUMBER: US/09548,372D
: CURRENT FILING DATE: 2000-04-12
: PRIOR APPLICATION NUMBER: US 60/155,493
: PRIOR FILING DATE: 1999-09-23
: PRIOR APPLICATION NUMBER: US 09/404,133
: PRIOR FILING DATE: 1999-09-23
: PRIOR APPLICATION NUMBER: PCT/US99/20881
: PRIOR FILING DATE: 1999-09-23
: PRIOR APPLICATION NUMBER: US 60/101,594
: PRIOR FILING DATE: 1998-09-24
: NUMBER OF SEQ ID NOS: 73
: SOFTWARE: PatentIn version 3.1
: SEQ ID NO 8
: LENGTH: 501
: TYPE: PRT
: ORGANISM: MUS MUSCULUS
US-09-548-372D-8

Query Match 98.8%; Score 2390; DB 4; Length 501;
Best Local Similarity 98.2%; Pred. No. 1.5e-248;
Matches 448; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 1 ETDEEPEEPCRGSGFVEMVDNLGRKSGQGYVYVEMTSGPOTLNLVDTGSSNFVAGAAP 60
Db 46 ETDEEPEEPCRGSGFVEMVDNLGRKSGQGYVYVEMTSGPOTLNLVDTGSSNFVAGAAP 105
QY 61 HPFLHRYTORLSSTYRDLRKGVYVPTQGWEGELGTLVSIHPGPNVTVRANIAITE 120
Db 106 HPFLHRYTORLSSTYRDLRKGVYVPTQGWEGELGTLVSIHPGPNVTVRANIAITE 165
QY 121 SDRFFINGSNWEGLGLAYAEIARPDSDSLEPFEDSLVKQTHVFNLFSLQCCAGFPPLNQS 180
Db 166 SDRFFINGSNWEGLGLAYAEIARPDSDSLEPFEDSLVKQTHVFNLFSLQCCAGFPPLNOT 225
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Db 226 EALASVGGSMIIGGIDHSLYTGSLWYTPIRREWYEVIIVRVEINGQDLKMDCKEYNYDK 285
QY 241 SIVDSGTTNLRPKKVFEEAAVKSIAASSTKFPDGFMLGSQLVCWQAGTTPNNIFPVIS 300
Db 286 SIVDSGTTNLRPKKVFEEAAVKSIAASSTKFPDGFMLGSQLVCWQAGTTPNNIFPVIS 345
QY 301 LYLMGEVNTQSFRTITLPOQYLRLPVEDVATSDQDCYKFAISQSSTGTVMGAVIMEGFYV 360
Db 346 LYLMGEVNTQSFRTITLPOQYLRLPVEDVATSDQDCYKFAISQSSTGTVMGAVIMEGFYV 405
QY 361 FDRARRKRIGFAVSACHVDEFTAAVEGPFVTLDMEDCGYNIPTDDESTLTMTIAYVMAAI 420
Db 406 FDRARRKRIGFAVSACHVDEFTAAVEGPFVTLDMEDCGYNIPTDDESTLTMTIAYVMAAI 465
QY 421 CALFMLPLCLMVQWRCRLCRLRQHHDDFADDISLLK 456
Db 466 CALFMLPLCLMVQWRCRLCRLRQHHDDFADDISLLK 501

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RESULT 6
US-09-548-367D-8
: Sequence 8, Application US/09548367D
: Patent No. 6440698
: GENERAL INFORMATION:
: APPLICANT: GURNEY ET AL.

```

Query Match		78.2%	Score 1835.4	DB 4	Length 2370
Best Local Similarity		99.1%	Pred. No. 0		
Matches 1856		Conservative 0	Mismatches 16	Indels 1	Gaps 1
QY	477	GCACGCTTTGGAGATGGTGGACAACTGAGGGGCAAGTCCGGGCGAGGGCTACTACGTG	536		
DB	1	GCACGCTTTGGAGATGGTGGACAACTGAGGGGCAAGTCCGGGCGAGGGCTACTACGTG	60		
QY	537	GAGATGACCGTGGGAGAGCCCGCCGAGACGCTCAACATCCTCGTGGTATACAGGACGAGT	596		
DB	61	GAGATGACCGTGGGAGAGCCCGCCGAGACGCTCAACATCCTCGTGGTATACAGGACGAGT	120		
QY	597	AACCTTTGAGTGGTGGTGGGAGAGCCCGCCGAGACGCTCAACATCCTCGTGGTATACAGGACGAGT	656		
DB	121	AACCTTTGAGTGGTGGTGGGAGAGCCCGCCGAGACGCTCAACATCCTCGTGGTATACAGGACGAGT	180		
QY	657	TCCAGACATACCGGAGCTCCGGAGGGTGTATGTCCTTACACCGAGGGCAAGTGG	716		
DB	181	TCCAGACATACCGGAGCTCCGGAGGGTGTATGTCCTTACACCGAGGGCAAGTGG	240		
QY	717	GAAGGGAGCTGGGACCGACCTGTAAGCATCCCGCCATGGCCCAAGCTCACTGTGGT	776		
DB	241	GAAGGGAGCTGGGACCGACCTGTAAGCATCCCGCCATGGCCCAAGCTCACTGTGGT	300		
QY	777	GCAACATTTGCTGCTCACTCACTGAGCAAGTCTTCAATCAAGGGTCCCACTGGGAA	836		
DB	301	GCAACATTTGCTGCTCACTCACTGAGCAAGTCTTCAATCAAGGGTCCCACTGGGAA	360		
QY	837	GGATCTGGGGCTGGCTATGCTGAGATTCGCGGCTGAGCTGCTGAGGCTTTC	896		
DB	361	GGATCTGGGGCTGGCTATGCTGAGATTCGCGGCTGAGCTGCTGAGGCTTTC	420		
QY	897	TTTGACTCTCTGTTAAAGAGACCCACGCTTCCCAACCTCTTCTCCCTGAGCTTTTGGT	956		
DB	421	TTTGACTCTCTGTTAAAGAGACCCACGCTTCCCAACCTCTTCTCCCTGAGCTTTTGGT	480		
QY	957	GCTGGCTTCCCGCTCAAGCAGTCTGAAGTGTGGCTCTGTGGGAGGAGCATGATCAT	1016		
DB	481	GCTGGCTTCCCGCTCAAGCAGTCTGAAGTGTGGCTCTGTGGGAGGAGCATGATCAT	540		
QY	1017	GGAGTATGAGCACTGCTGTACAGGAGTCTGTGTATACCCATCCGCGGGAG	1076		
DB	541	GGAGTATGAGCACTGCTGTACAGGAGTCTGTGTATACCCATCCGCGGGAG	600		
QY	1077	TGGTATTATGAGTGTATCTGTCGGGTGGAGATCAATGGACAGATCTGAAATGGAC	1136		
DB	601	TGGTATTATGAGTGTATCTGTCGGGTGGAGATCAATGGACAGATCTGAAATGGAC	660		
QY	1137	TGCAAGGAGTACAATATGACAAGAGCATTTGGACAGTGGCACCACCACTTCTGTTG	1196		
DB	661	TGCAAGGAGTACAATATGACAAGAGCATTTGGACAGTGGCACCACCACTTCTGTTG	720		
QY	1197	CCCAAGAAAGTCTTTGAAAGTGCATCAATCCATCAAGGAGCTCTCCACGAGAG	1256		
DB	721	CCCAAGAAAGTCTTTGAAAGTGCATCAATCCATCAAGGAGCTCTCCACGAGAG	780		
QY	1257	TTCCCTGATGGTTCTGGCTAGGAGAGAGCTGTGCTGGCAAGCGGACCACTTTC	1316		
DB	781	TTCCCTGATGGTTCTGGCTAGGAGAGAGCTGTGCTGGCAAGCGGACCACTTTC	840		
QY	1317	TGGAACATTTTCCAGTCTACCTCACTTAATGGGTGAGTTACCAACAGTCCCTTC	1376		
DB	841	TGGAACATTTTCCAGTCTACCTCACTTAATGGGTGAGTTACCAACAGTCCCTTC	900		
QY	1377	CCCATCACCATCTTCCGAGCAATACCTGGCGGAGTGGAGATGTGGCCACGTCCTTTC	1436		
DB	901	CCCATCACCATCTTCCGAGCAATACCTGGCGGAGTGGAGATGTGGCCACGTCCTTTC	960		
QY	1437	GAGGAGTGTACAGTTTCCCATCTCACAGTCATCCACGGGACGCTGTATGGAGCTGT	1496		
DB	961	GAGGAGTGTACAGTTTCCCATCTCACAGTCATCCACGGGACGCTGTATGGAGCTGT	1020		

QY	1497	ATCATGGAGGGCTTCTACGTTGCTTGTATCGGGCCGAAACGAATTTGGCTTTCTGTC	1556		
DB	1021	ATCATGGAGGGCTTCTACGTTGCTTGTATCGGGCCGAAACGAATTTGGCTTTCTGTC	1080		
QY	1557	AGCGCTTCCATGTGTCAGATGAGTTTACAGGCGGAGCGGTGGAGGCGCTTTTGTAC	1616		
DB	1081	AGCGCTTCCATGTGTCAGATGAGTTTACAGGCGGAGCGGTGGAGGCGCTTTTGTAC	1140		
QY	1617	TTGGACATGGAAGACTGTGGCTTACAACTTCCACAGACAGATGAGTCAACCTCATGAC	1676		
DB	1141	TTGGACATGGAAGACTGTGGCTTACAACTTCCACAGACAGATGAGTCAACCTCATGAC	1200		
QY	1677	ATAGCCTATGTCATGCTGCCATCTGCCCTCTTTCATGCTGCCATCTGCCCTCATGGT	1736		
DB	1201	ATAGCCTATGTCATGCTGCCATCTGCCCTCTTTCATGCTGCCATCTGCCCTCATGGT	1260		
QY	1737	TGTCAGTGGCGCTGCTCGGCTCGGCTGGCCAGACAGATGATGCTTCTGCTATGACATC	1796		
DB	1261	TGTCAGTGGCGCTGCTCGGCTCGGCTGGCCAGACAGATGATGCTTCTGCTATGACATC	1320		
QY	1797	TCCCTGCTGAAGTGGAGGGCCCATGGCCAGAAATAGAGATTCCCTT-GGACCACT	1855		
DB	1321	TCCCTGCTGAAGTGGAGGGCCCATGGCCAGAAATAGAGATTCCCTTGGGACCACT	1380		
QY	1856	CGCTGGTTCACATTTGCTCACAAGTAGGACACAGATGGCAGTCTGTGGCCAGACCTC	1915		
DB	1381	CGCTGGTTCACATTTGCTCACAAGTAGGACACAGATGGCAGTCTGTGGCCAGACCTC	1440		
QY	1916	AGGACCTCTCCACCCACCAATGCTGCTGCTTGCATGAGAGGAAAGGCTGGCAAGG	1975		
DB	1441	AGGACCTCTCCACCCACCAATGCTGCTGCTTGCATGAGAGGAAAGGCTGGCAAGG	1500		
QY	1976	TGGGTTCCAGGAGTGTACCTGTAGAAACAGAAAGAGAAAGAGACCTCTGCTGG	2035		
DB	1501	TGGGTTCCAGGAGTGTACCTGTAGAAACAGAAAGAGAAAGAGACCTCTGCTGG	1560		
QY	2036	CGGGAATACCTTGTGTCACCTCAAAATTTAAGTCGGGAAATTCGTGCTTGAACCTCAG	2095		
DB	1561	CGGGAATACCTTGTGTCACCTCAAAATTTAAGTCGGGAAATTCGTGCTTGAACCTCAG	1620		
QY	2096	CCCTCAACCTTTGTCACCACTTCTTAAATTTCTCAACCCAAAGTATTCTTTCTTT	2155		
DB	1621	CCCTCAACCTTTGTCACCACTTCTTAAATTTCTCAACCCAAAGTATTCTTTCTTT	1680		
QY	2156	AGTTTCAGAGTACTGGCATCACAGGTTACCTTGGCGTGTGCTGCTGGTACCT	2215		
DB	1681	AGTTTCAGAGTACTGGCATCACAGGTTACCTTGGCGTGTGCTGCTGGTACCT	1740		
QY	2216	GGCAGAGAGAGCAAGCTTCTTCCCTGCTGGCCAAAGTCAAGTGGAGAGATGCACA	2275		
DB	1741	GGCAGAGAGAGCAAGCTTCTTCCCTGCTGGCCAAAGTCAAGTGGAGAGATGCACA	1800		
QY	2276	GTTCCTATTCTTCTTTAGACAGGAGCTGTATAAACAAGCTTAACTTTGGTGAAGAT	2335		
DB	1801	GTTCCTATTCTTCTTTAGACAGGAGCTGTATAAACAAGCTTAACTTTGGTGAAGAT	1860		
QY	2336	TGCTCTTTGAAT 2348			
DB	1861	TGCTCTTTGAAT 1873			

RESULT 7
US-09-548-372D-7
; Sequence 7, Application US/09548372D
; Patent No. 6420534
; GENERAL INFORMATION:
; APPLICANT: GURNEY ET AL.
; TITLE OF INVENTION: ALZHEIMER'S DISEASE SECRETASE, APP SUBSTRATES THEREFOR AND
; FILE REFERENCE: 29315/62801
; CURRENT APPLICATION NUMBER: US/09/548,372D
; CURRENT FILING DATE: 2000-04-12
; PRIOR APPLICATION NUMBER: US 60/155,493

